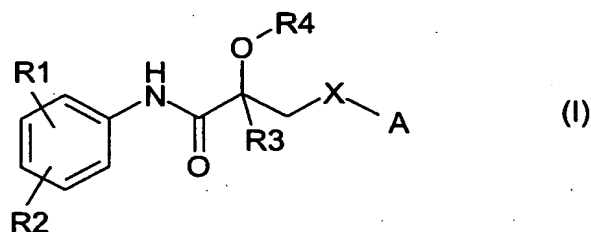


Claims

1. Compounds of formula (I)



wherein

R₁ is (C₁-C₇)alkyl, hydroxy(C₁-C₇)alkyl or -(CH₂)_n-CHO, wherein n is 0-6;

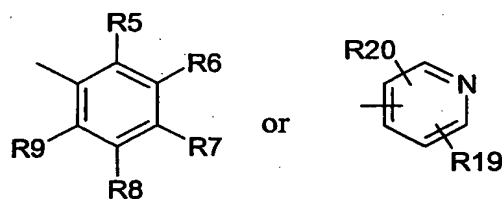
R₂ is nitro, cyano or halogen;

R₃ is hydrogen, (C₁-C₇)alkyl or halo(C₁-C₇)alkyl;

R₄ is hydrogen, (C₁-C₇)alkyl, COR₁₀ or SO₂R₁₃;

X is O or NH;

A is a group selected from:



wherein R₅, R₆, R₇, R₈ and R₉ are independently hydrogen, halogen, nitro, cyano, (C₁-C₇)alkyl, halo(C₁-C₇)alkyl, cyano(C₁-C₇)alkyl, amino, mono- or di(C₁-C₇)alkyl-amino, amino(C₁-C₇)alkyl, hydroxy(C₁-C₇)alkyl, (C₁-C₇)alkoxy(C₁-C₇)alkyl, -NHCOR₁₀, -N(COR₁₀)₂, -COR₁₁, -OR₁₂, -OSO₂R₁₃, -SO₂R₁₄, -NHSO₂R₁₃ or -SR₁₅ or an imide ring; or R₅ and R₆, R₆ and R₇, R₇ and R₈, or R₈ and R₉ form, together with any of the ring atom(s) to which they are attached, a condensed 5 to 7 membered aliphatic or aromatic carbocyclic ring or a condensed 5 to 7 membered heterocyclic ring containing 1 to 3 heteroatom(s) selected from N, O and S;

R₁₀ and R₁₁ are independently (C₁-C₇)alkyl, (C₂-C₇)alkenyl, halo(C₁-C₇)alkyl, amino(C₁-C₇)alkyl, mono- or di(C₁-C₇)alkylamino(C₁-C₇)alkyl, (C₆-C₁₀)aryl, -N(R₁₆)₂ or -OR₁₇;

R₁₂ and R₁₅ are independently hydrogen, (C₁-C₇)alkyl, (C₂-C₇)alkenyl, halo(C₁-C₇)alkyl, amino(C₁-C₇)alkyl, mono- or di(C₁-C₇)alkylamino(C₁-C₇)alkyl, (C₆-C₁₀)aryl, -COR₁₈;

5 R₁₃ and R₁₄ are independently (C₁-C₇)alkyl or (C₂-C₇)alkenyl, halo(C₁-C₇)alkyl or (C₆-C₁₀)aryl;

R₁₆ and R₁₇ are independently hydrogen, (C₁-C₇)alkyl, (C₂-C₇)alkenyl, halo(C₁-C₇)alkyl, amino(C₁-C₇)alkyl or (C₆-C₁₀)aryl;

R₁₈ is (C₁-C₇)alkyl, (C₂-C₇)alkenyl, halo(C₁-C₇)alkyl or (C₆-C₁₀)aryl;

10 R₁₉ and R₂₀ are independently hydrogen, halogen, (C₁-C₇)alkyl or (C₂-C₇)alkenyl;

and wherein each aryl or ring residue defined above may be substituted; and pharmaceutically acceptable salts and esters thereof.

15 2. A compound according to claim 1, wherein R₄ is hydrogen and R₃ is methyl.

3. A compound according to claim 1 or 2, wherein X is O.

20 4. A compound according to any of claim 1 to 3, wherein R₁ is methyl or hydroxymethyl and R₂ is nitro or cyano.

25 5. A compound according to any of claims 1 to 4, wherein R₅, R₆, R₇, R₈ and R₉ are independently hydrogen, halogen, nitro, cyano, (C₁-C₇)alkyl, (C₁-C₇)alkoxy, halo(C₁-C₇)alkyl, hydroxy(C₁-C₇)alkyl or -NHCOR₁₀, wherein R₁₀ is (C₁-C₇)alkyl, halo(C₁-C₇)alkyl, hydroxy or (C₁-C₇)alkoxy.

6. A compound according to claim 5, wherein at least one of R₅, R₆, R₇, R₈ and R₉ is a halogen.

30 7. A compound according to claim 6, wherein at least two of R₅, R₆, R₇, R₈ and R₉ are selected from a group consisting of halogen, cyano and acetamido.

8. A pharmaceutical composition comprising a compound of formula (I) together with a pharmaceutically acceptable carrier.

9. A method of hormonal therapy, comprising administering to a subject in need thereof a therapeutically effective amount of a compound of formula (I).

5 10. A method for the treatment or prevention of androgen receptor dependent conditions, comprising administering to a subject in need thereof a therapeutically effective amount of a compound of formula (I).

10 11. A method according to claim 9 or 10, comprising administering a therapeutically effective amount of a compound of formula (I) orally.